

CLAIMS

We claim:

1. A cell containing a composition comprising:
a) an exogeneous scaffold comprising at least a first binding site and a second binding
5 site; and
b) at least a first and a second enzyme, wherein at least one of said enzymes is
heterologous to said cell;
wherein said first enzyme is bound to said first binding site and said second enzyme is
bound to said second binding site.

10 2. A cell containing a composition comprising:
a) nucleic acid encoding an exogeneous scaffold comprising at least a first binding site
and a second binding site; and
b) nucleic acid encoding at least a first and a second enzyme, wherein at least one of said
enzymes is heterologous to said cell;
15 wherein said first enzyme is capable of being bound to said first binding site and said
second enzyme is capable of being bound to said second binding site.

3. A cell according to claim 1 or 2, wherein said scaffold comprises at least three binding
sites.

20 4. A cell according to claim 1 or 2, wherein said scaffold comprises at least four binding
sites.

5. A cell according to claim 1 or 2, wherein said scaffold comprises at least five binding
sites.

6. A cell according to claim 1 or 2, wherein said binding sites are on the same scaffold
molecule.

Sub
a2

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John B.

Sub B
Sub a3

7. A cell according to claim 1 or 2, wherein said binding sites are on different scaffold molecules.

8. A cell according to claim 1 or 2, further comprising
c) an exogeneous precursor.

5 9. A method of screening for a bioactive agent, said method comprising:

a) expressing in a plurality of host cells nucleic acid encoding an exogeneous scaffold comprising at least a first binding site and a second binding site;

b) expressing in said plurality of host cells nucleic acids encoding at least a first enzyme and a second enzyme; under conditions where said nucleic acids are expressed, and said

10 first enzyme binds to said first binding site and said second enzyme binds to said second binding site;

c) screening said host cells for a cell exhibiting an altered phenotype, wherein said altered phenotype is due to the presence of a bioactive agent.

10. A method of screening for a bioactive agent, said method comprising:

15 a) expressing in a plurality of host cells a library of nucleic acids encoding a library of scaffolds, each scaffold comprising at least a first binding site and a second binding site;

b) expressing in said cells a library of nucleic acids encoding a library of enzymes; under conditions where said nucleic acids are expressed, and at least some of said enzymes bind to said scaffolds;

20 c) screening said host cells for an altered phenotype.

11. A method according to claim 9, wherein said expressing step further comprises introducing said nucleic acids into said cells.

12. A method according to claim 10, wherein said introduction comprises retroviral infection.

25 13. A method according to claim 9 further comprising adding at least one exogenous precursor to said cell.

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14. A method according to claim 9, wherein said method further comprises isolating said cell exhibiting an altered phenotype.
15. A method according to claim 9 further comprising isolating said scaffold from said host cell.
- 5 16. A method according to claim 9 further comprising isolating said nucleic acid encoding said scaffold from said host cell.
17. A method according to claim 9 further comprising isolating said enzymes from said cell.
18. A method according to claim 9 further comprising isolating said nucleic acids
10 encoding said enzymes from said cell.
19. A method according to claim 9 further comprising identifying said bioactive agent.
20. A method according to claim 9, wherein said nucleic acids contain localization signals.
21. A composition comprising:
15 a) a scaffold comprising at least a first and a second binding site; and
b) at least a first and a second enzyme;
wherein said first enzyme is bound to said first binding site and said second enzyme is bound to said second binding site, wherein said enzymes do not biologically react with said scaffold or each other.
- 20 22. A composition according to claim 18 wherein said scaffold comprises a plurality of binding sites and said composition comprises a plurality of enzymes.
23. A composition according to claim 18 wherein said composition is bound to a solid support.

24. A composition according to claim 18 wherein said first binding site and said second binding sites are on the same scaffold segment.

25. A composition according to claim 18 wherein said first binding site and said second binding sites are on different segments of the scaffold.

- 5 26. A method comprising:
- a) providing a scaffold comprising at least a first binding site and a second binding site;
 - b) providing at least a first and a second enzyme, wherein said first enzyme is bound to said first binding site and said second enzyme is bound to said second binding site to form a enzyme complex;
 - 10 c) providing said enzyme complex with at least one precursor, under conditions wherein said precursor is enzymatically altered by at least one of said enzymes to form a bioactive agent.

Handwritten annotations in the lower half of the page include:

- A large scribble consisting of several overlapping loops and lines, partially obscuring the text of claim 26.
- Four handwritten annotations, each consisting of the word "add" followed by a subscripted number (A4, e1, D1, e1) and a right-facing curly bracket. These annotations are positioned below the text of claim 26, with the first one on the left and the others arranged in two columns to the right.

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